

6. Use benchmarks to estimate a fraction for each square root.

State the benchmarks you used.

a) $\sqrt{\frac{8}{10}}$ b) $\sqrt{\frac{17}{5}}$
 c) $\sqrt{\frac{7}{13}}$ d) $\sqrt{\frac{29}{6}}$

10. Find 2 decimals that have square roots between each pair of numbers.

Justify your answers.

- a) 3 and 4
 b) 7 and 8
 c) 12 and 13
 d) 1.5 and 2.5
 e) 4.5 and 5.5

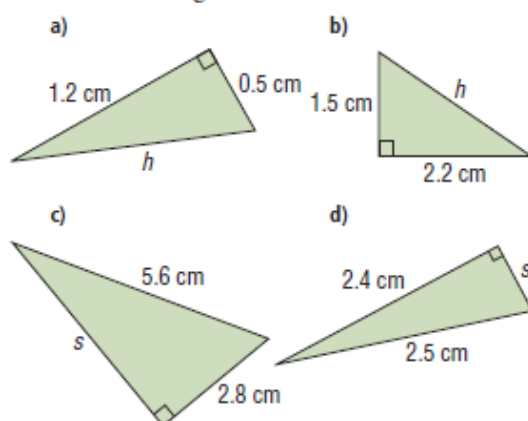
11. Use any strategy you wish to estimate the value of each square root. Explain why you used the strategy you did.

a) $\sqrt{4.5}$ b) $\sqrt{\frac{17}{2}}$ c) $\sqrt{0.15}$ d) $\sqrt{\frac{10}{41}}$
 e) $\sqrt{0.7}$ f) $\sqrt{\frac{8}{45}}$ g) $\sqrt{0.05}$ h) $\sqrt{\frac{90}{19}}$

12. Approximate each square root to the nearest tenth. Explain your strategy.

a) $\sqrt{\frac{3}{8}}$ b) $\sqrt{\frac{5}{12}}$ c) $\sqrt{\frac{13}{4}}$ d) $\sqrt{\frac{25}{3}}$

13. In each triangle, determine the unknown length.



18. Look at the numbers and their square roots you have determined in this lesson.

How would you describe the numbers whose square roots are:

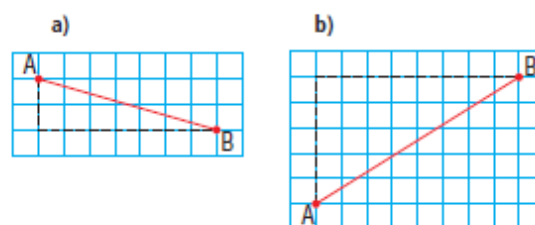
- a) less than the number?
 b) equal to the number?
 c) greater than the number?
 Justify your answer.

19. Determine a decimal or a fraction whose square root is between each pair of numbers.

- a) 0 and 1 b) 1.5 and 2
 c) $\frac{1}{2}$ and $\frac{3}{4}$ d) $3\frac{3}{4}$ and 4

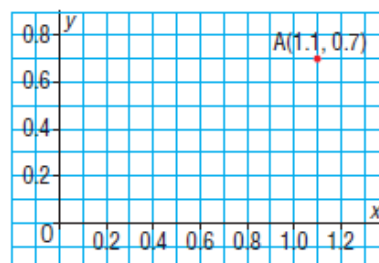
20. On each grid below, the side length of each square represents 0.25 km.

Determine the length of AB to the nearest hundredth of a kilometre.



22. Are there any square numbers between 0.6 and 0.61? How do you know?

23. The grid below shows point A(1.1, 0.7) that is one vertex of a square with area 0.25 square units. What are the coordinates of the other three vertices of the square? Justify your answer.



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24. The side length of a square photograph is 5.5 cm. An enlargement of the photograph is a square with an area that is twice the area of the smaller photograph.
- a) Estimate the side length of the larger photograph. Justify your answer.
 - b) Why is the side length of the larger photograph not twice the side length of the smaller photograph?